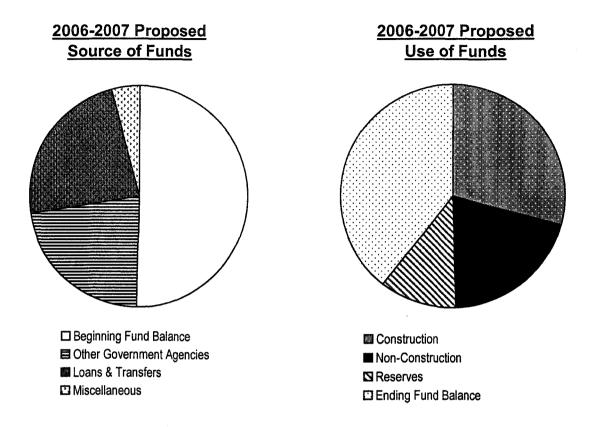
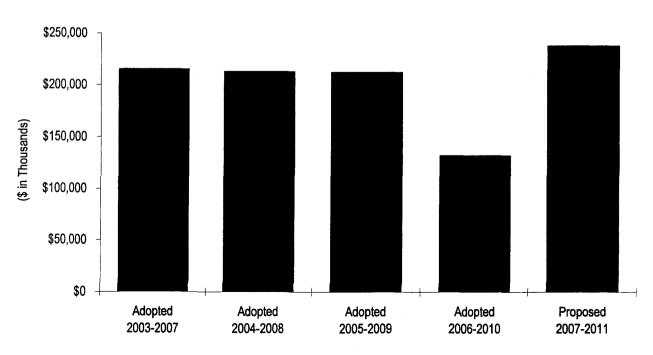
# WATER POLLUTION CONTROL CAPITAL PROGRAM 2007-2011 Capital Improvement Program



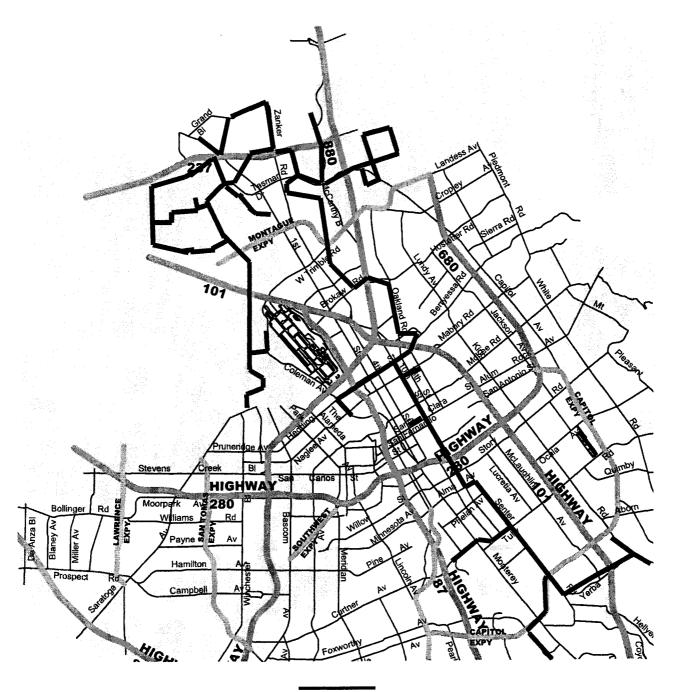
## **CIP History**



## 2007-2011 Proposed Capital Improvement Program

### 2006-2007 Project Approximate Locations:

South Bay Water Recycling Project



## 2007-2011 Proposed Capital Improvement Program

#### **Overview**

#### Introduction

The San José/Santa Clara Water Pollution Control Plant (Plant) is a regional wastewater treatment facility serving eight tributary collection agencies sewage (Agencies), including municipalities and sanitary sewer districts. The service area includes the following cities and adjacent, unincorporated County territory: San José, Santa Clara, Milpitas, Cupertino Sanitary District, West Valley Sanitary District (Campbell, Los Gatos, Monte Sereno and Saratoga), Sanitation Districts 2-3, Sunol and Burbank Sanitary Districts. The Plant is jointly owned by the cities of San José and Santa Clara and is administered and operated by the City of San José's Environmental Services Department (ESD), which is also responsible for planning, designing and constructing new wastewater treatment and water reuse facilities.

Capital costs are estimated annually by ESD staff and are reviewed and recommended as a budget by the Treatment Plant Advisory Committee to the San José City Council for appropriation. The costs are allocated to each Agency based on its contracted-for capacity in the Plant. Each Agency is responsible for its allocated share of Plant costs, as well as its own sewage collection system maintenance, operation, and capital costs; debt service on bonds issued by the Agency for sewer purposes; and any other sewer service related costs. Each Agency is also responsible for establishing and collecting its respective sewer service and use charges, connection fees or other charges for sewer service.

A revenue program is prepared annually by each Agency to establish its sewer service and use charge rates. Rates are adopted by ordinance, or resolution, of the governing body of each Agency. The Agencies' revenue programs, ordinances and resolutions are submitted to the City of San José, as the administering agency, for review to determine conformance with State Water Resources Control Board (SWRCB) revenue program guidelines and are then submitted by San José to the SWRCB for review and certification.

This program is part of the Environmental and Utility Services City Service Area (CSA) and supports the following outcomes: Reliable Utility Infrastructure and Healthy Streams, Rivers, Marsh, and Bay.

#### **Program Priorities and Objectives**

The Plant Capital Improvement Program (CIP) projects are evaluated using the following criteria established by ESD:

- Projects needed for health and safety.
- Projects needed to maintain the quality of effluent flow.
- Projects mandated by regulatory agencies.
- Projects that ensure adequate process reliability.
- Projects that improve efficiency and effectiveness.

#### Sources of Funding

The 2007-2011 Proposed CIP provides funding of \$238.1 million, of which \$56.3 million is allocated in 2006-2007.

Revenues for the Five-Year CIP are derived from eight sources: Contributions from the City of Santa Clara and Other Agencies (\$50.6 million); transfers from the City of San José Sewer Service and Use Charge Fund (\$82.7

## 2007-2011 Proposed Capital Improvement Program

#### **Overview**

#### Sources of Funding (Cont'd.)

million) and the Sewage Treatment Plant Connection Fee Fund (\$15.4 million); Interest (\$7.1 million); Calpine Metcalf Energy Center Facilities Repayments (\$1.9 million); and federal grants from the US Bureau of Reclamation (\$2.0 million). In addition, \$50.0 million from a Clean Water Financing Authority Revenue Bond Sale in 2009-2010, and \$20.2 million from the available fund balance are programmed to support projects.

Contributions from the City of Santa Clara and other agencies are determined by agreements with the participating agencies, financing plans, anticipated expenditures for the Plant and the amount and characteristics of flows to the treatment plant. contributions reimburse the City for actual project expenditures. In this Proposed CIP, these contributions from the City of Santa Clara and the other agencies total \$50.6 million, which represents a \$15.9 million (45.9%) increase compared to the 2006-2010 Adopted CIP. This increase results from the additional capital investment plan such as the Plant Electrical Reliability project and the Bio-Solid Master Plan.

The Sewer Service and Use Charge Fund is an operating fund that derives its revenues from fees imposed on San José's residential, commercial, and industrial users of the sanitary sewer system and represents the largest source of funding for this capital program. Transfers from the Sewer Service and Use Charge Fund to the Water Pollution Control Capital Improvement Program reflect a \$49.3 million (148%) increase compared to the 2006-2010 Adopted CIP. In 2004-2005, the City Council approved a three-year 4.5% annual rate increase strategy for the Sewer

Service and Use Charge Fee, representing the first increase to this fee since 1994. Continuation of annual increases in the range of 5% annually, beyond the Council-approved three-year rate increase strategy, will be required to maintain the program represented in this document and have been assumed in preparation of the current CIP. These increases will fund projects as described in the "Program Highlights" category below.

An annual transfer of \$3.08 million is anticipated from San José's Sewage Treatment Plant Connection Fee Fund and is programmed as part of the 2007-2011 Proposed CIP. This transfer is consistent with the amount programmed in the 2006-2010 Adopted CIP.

#### **Program Highlights**

#### Plant Reliability Improvements

The Plant has a current maximum wet weather flow capacity rated at 271 mgd. In the past, the Plant has experienced peak storm flows, in excess of 320 mgd, that have forced an overload of certain operational treatment processes. In November 2001, Plant staff completed a study to assess the Plant's infrastructure and ability to increase wet weather operational capacity.

As a result of the study, improvements were identified that would significantly increase the Plant's wet weather flow peak capacity and operational reliability. These improvements are estimated to increase the Plant's wet weather flow peak capacity to approximately 400 mgd. The Plant Reliability Improvements project was awarded on February 15, 2005 and includes the following components:

## 2007-2011 Proposed Capital Improvement Program

#### **Overview**

#### Program Highlights (Cont'd.)

#### Plant Reliability Improvements (Cont'd.)

1) additions and improvements of piping systems, and hydraulic improvements for flow equalization; 2) a new raw sewage pump station and new filter influent pump station; and 3) most importantly, additional parallel headworks facilities that will allow the shutdown of the current headworks facility for much needed maintenance work. This project is scheduled for completion in the second quarter of 2008.

The lowest bid on the construction contract for the Plant Reliability Improvements project was significantly higher than budgeted, due in part to the rapid price escalation of cement, reinforced concrete pipe, and steel. In order to fund this project, given the cost escalations, additional funding was provided through a transfer from the Sewage Treatment Plant Connection Fee Fund, a reprioritization of projects, and the realization of project savings. As a result of these actions, several projects were delayed or eliminated, including the delay of the start date of the Plant Electrical Reliability project from 2004-2005 to 2008-2009, the delay of the Inactive Lagoons Bio-Solids Removal project from 2006-2007 to 2010-2011, and the removal of the Filter Improvements project from this CIP. An Plant increase the Infrastructure Improvements allocation is recommended to ensure adequate reserve funding is available to perform critical electrical repairs replacement, as necessary, until the start of the Plant Electrical Reliability project, and to fund other critical repairs at the Treatment Plant.

#### Plant Electrical Reliability Project

This \$55 million project will include a fourphase construction schedule based upon the recently completed master study. The project will replace and upgrade substations and switches, modify and upgrade power distribution buses and cabling, provide backup systems, and enhance the overall safety and reliability of the plant electrical systems.

The current power distribution network has grown in a patched manner over the years, and many electrical system components have reached the end of their service life. This project will address immediate safety needs, as well as provide for future reliability needs.

The conceptual design of the first phase was completed. In 2008-2009, \$5 million is programmed for this phase which includes: 1) addition of current limiting reactors at substation one to reduce fault current; 2) retrofitting switchgear with higher rated breakers and buss structures; and 3) addition of new switchgear and new cables to make an interim ring buss distribution system operational. A \$50 million bond issue is planned in 2009-2010 to finance the remaining three phases of this project.

Several contracts will be placed to cover the entire scope of this project. The earliest start date for selecting a consultant to prepare the design-build specification would be summer 2008. Once the contract to design-build is awarded, it is estimated that the project will take several years to complete.

## 2007-2011 Proposed Capital Improvement Program

#### **Overview**

#### Program Highlights (Cont'd.)

#### South Bay Action Plan

A South Bay Action Plan (SBAP) has been a requirement of the Plant's National Pollution Discharge Elimination System (NPDES) permit since 1991 and includes projects necessary to reduce average dry weather effluent flow from the Plant to below the 120 million gallons per day (mgd) flow trigger, or to levels that protect salt marsh habitat for endangered species in the South Bay. The requirement has changed from specific elements included in the discharge permit to the submission of an annual work plan that allows for adaptive management. In June 1997, both the San Francisco Bay Regional Water Quality Control Board (Regional Board) and the San José City Council approved the Revised South Bay Action Plan (RSBAP). The RSBAP was included as a provision of the 1998 NPDES permit and included the Expanded Water Recycling, Industrial Water Recycling/Reuse, Groundwater Inflow/Infiltration Reduction. Environmental Enhancement Pilot projects. In February 1998, Council approved a financing plan that identified \$127 million in funding sources for the RSBAP, primarily through State Revolving Fund loans from the State Water Resources Control Board (SWRCB), and Treatment Plant Capital Fund reserves. Included in the \$127 million was \$100 million for water recycling projects.

On September 17, 2003 the Regional Board approved a new NPDES permit for the Plant and continued the requirement for a South Bay Action Plan to comply with the original 1991 Regional Board Resolution.

The Regional Board SBAP requirement states that the Discharger will continue to implement its water conservation, industrial recycling and reuse, and recycling programs. Council approved the first annual SBAP work plan under the 2003 NPDES permit on February 17, 2004. The 2004 SBAP Work plan elements include:

- Water Efficiency Programs -Industrial recycling/reuse and indoor water conservation. Programs will continue but at a reduced level of effort.
- South Bay Water Recycling System Completion of the Silver Creek Pipeline extension to Coyote Valley and the Metcalf Energy Center, and continue collaborative effort with the Santa Clara Valley Water District for future expansion, operation and maintenance of the system.
- Salt Marsh Vegetative Assessment Perform marsh assessments in 2005 and 2007 to identify salt marsh conversion in the study area. Historically, the City has performed marsh assessments on an annual basis and is investigating more cost-effective and efficient methods of continuing the annual assessments.
- California Clapper Rail and the Salt Marsh Harvest Mouse Survey. In 2006, perform a synoptic survey of the clapper rail and harvest mouse. This was included in the work plan, but not required in 2004.

## 2007-2011 Proposed Capital Improvement Program

#### **Overview**

#### Program Highlights (Cont'd.)

#### Other Projects

The 2007-2011 Proposed Capital Budget includes other major projects that will require an investment of capital funds. These projects are required to meet regulatory mandates or ensure process reliability:

- Alternative Disinfection (design and build) \$6.3 million in this CIP, \$6.8 million total project costs;
- Bio-Solids Master Plan \$1.0 million in this CIP;
- Fire Line Replacement \$750,000 total costs in this CIP;
- Inactive Lagoons Bio-Solids Removal, Phase 1 (characterization of solids) -\$125,000 in this CIP, \$28 million added to a reserve;
- M5, Ring Buss & cable replacement -\$8.2 million total project costs in this CIP; and
- Scum Digestion \$1.0 million in total project costs in this CIP.

#### Reserve for Equipment Replacement

As in prior CIP's, the 2007-2011 Proposed CIP includes a minimum \$5.0 million reserve for equipment replacement. This reserve minimum was established to satisfy three contractual requirements:

- The State Water Resources Control Board's (SWRCB) Policy implementing the State Revolving Fund for Construction of Wastewater Treatment requires that revenue requirements include funds the replacement of major equipment for maintaining capacity and performance of the treatment plant over its useful life. Compliance with the SWRCB's policy is a requirement of State Revolving Fund Loan Agreements. Equipment replacement of \$7.6 million and a reserve of \$5.0 million are included in the 2007-2011 Proposed CIP to satisfy this requirement.
- The Clean Water Financing Authority (CWFA) Bond Covenants require that a reserve be maintained at a minimum level of \$5.0 million to help pay the costs of extraordinary repairs and for renewal and replacement of the treatment plant when insurance and other funds budgeted for such purposes are exhausted, or are insufficient to meet the need.
- The Master Agreements for Wastewater Treatment between City of San José, City of Santa Clara, and Tributary Agencies established a replacement fund to deposit annual contributions for the replacement of major treatment plant equipment. The Master Agreements also require that each agency pay its proportionate share of the annual replacement contribution.

## 2007-2011 Proposed Capital Improvement Program

#### **Overview**

## Major Changes from the 2006-2010 Adopted CIP

Major changes from the 2006-2010 Adopted CIP include the following:

- New funding, from a \$50 million CWFA Revenue Bond Sale in 2009-2010, to fund the Plant Electrical Reliability Improvements project.
- Additional funding in the amount of \$16 million as transfers from City of Santa Clara & Other Agencies for costs for CIP projects (\$15.1 million), for 2005 refinanced debt service (reduced \$1.2 million) and for 2009 bond debt service payments (\$2.4 million).
- Additional funding in the amount of \$49.3 million as transfers from the Sewer Service and Use Charge Fund for City of San Jose costs for CIP projects (\$16.6 million), for 2005 refinanced debt service (\$28.0 million previously reported only in fund 541) and for 2009 bond debt service payments (\$4.7 million).
- Reallocation of the \$1.0 million funding in 2008-2009 to replace Generators 1-5 to the newly created Scum Digestion Program.
- Reallocation of \$5.0 million and \$300,000 million from the Land Management and Revised SBAP-Industrial Recycle projects to the previously delayed Filtration Action Plan project.

- Allocation of additional funding for new projects for the Bio-Solids Master Plan (\$1.0 million), for the Fire line replacement (\$750,000), for the M5 and Ring Buss project (\$8.2 million), and the Scum Digestion Program (\$1.0 million).
- Allocation of additional funding in the amount of \$3.5 million for critical concrete repair projects in the Plant Infrastructure Improvements category.
- Allocation of additional funding for the payment of increased debt service for the 2005 refinance and the 2009 new bond sale.

#### Operating Budget Impact

The Alternative Disinfection project in the 2007-2011 Proposed CIP is anticipated to have an impact on the operating budget, which is supported by the San José-Santa Clara Treatment Plant Operating Fund. This project switches the disinfection method used at the Plant from a chlorine gas and sulfur dioxide system to a safer, alternative liquid sodium hypochlorite and sodium bisulfite system, which reduces the risk of a massive catastrophe. The following table shows the increase in chemical costs as a result of the project. All projects anticipated to be operational in 2006-2007 have been addressed in the 2006-2007 Proposed Operating Budget.

## 2007-2011 Proposed Capital Improvement Program

## **Overview**

#### **Net Operating Budget Impact Summary**

	2007-	2008	2008-2009	2009-2010	2010-2011
Alternative Disinfection	\$	0	\$3,000,000	\$3,075,000	\$3,152,000
Total	\$	0	\$3,000,000	\$3,075,000	\$3,152,000

Note: The estimated operating costs have been provided by the Environmental Services Department and have not yet been fully analyzed by the Budget Office. That analysis may well result in different costs when the actual budget for the year in question is formulated.

# 2007-2011 Proposed Capital Improvement Program Source of Funds

SOURCE OF FUNDS	Estimated 2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	5-Year Total
San José-Santa Clara Treatment Plant Capital Fund							
Beginning Fund Balance	34,453,175	28,281,705	19,475,405	17,312,905	15,646,405	17,662,905	28,281,705 *
Sale of Bonds					E0 000 000		E0 000 000
Proceeds from Bond Sale Revenue from Other Agencies:					50,000,000		50,000,000
Federal Government							
U.S. Bureau of Reclamation Grant (SBWRP) State Government	500,000	2,000,000					2,000,000
<ul> <li>Silver Creek Segment Grant (Prop 13)</li> <li>Water Pollution Control Plant User Agencies</li> </ul>							
2005 Bond Debt Service	1,592,000	1,342,000	1,382,000	1,385,000	1,386,000	1,385,000	6,880,000
Repayment 2009 Bond Debt Service Repayment					816,000	1,553,000	2,369,000
Equipment Replacement	591,000	591,000	591,000	591,000	591,000	591,000	2,955,000
SRF Loan Repayment	1,384,000	1,384,000	1,384,000	1,384,000	1,384,000	1,384,000	6,920,000
─ WPCP Projects	1,825,000	7,170,000	5,660,000	5,660,000	5,760,000	7,260,000	31,510,000
Contributions, Loans and Transfers from: Special Funds							
<ul> <li>Transfer from Sewage Treatment Plant Connection Fee Fund (539)</li> </ul>	3,080,000	3,080,000	3,080,000	3,080,000	3,080,000	3,080,000	15,400,000
Transfer from Sewer Service and Use Charge Fund (541)	10,955,000	10,136,000	13,697,000	16,710,000	20,303,000	21,850,000	82,696,000

<sup>\*</sup> The 2007-2008 through 2010-2011 Beginning Balances are excluded from the FIVE-YEAR TOTAL SOURCE OF FUNDS to avoid multiple counting of the same funds.

## 2007-2011 Proposed Capital Improvement Program

### **Source of Funds**

SOURCE OF FUNDS (CONT'D.)	Estimated 2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	5-Year Total
San José-Santa Clara Treatment Plant Capital Fund							
Interest Income	2,171,000	1,939,000	1,316,000	1,479,000	1,201,000	1,207,000	7,142,000
Miscellaneous Revenue							
<ul> <li>Calpine Metcalf Energy Center</li> <li>Facilities Repayment</li> </ul>	389,000	389,000	389,000	389,000	389,000	389,000	1,945,000
Reserve for Encumbrances	108,553,530						
Total San José-Santa Clara Treatment Plant Capital Fund	165,493,705	56,312,705	46,974,405	47,990,905	100,556,405	56,361,905	238,098,705 *
TOTAL SOURCE OF FUNDS	165,493,705	56,312,705	46,974,405	47,990,905	100,556,405	56,361,905	238,098,705 *

<sup>\*</sup> The 2007-2008 through 2010-2011 Beginning Balances are excluded from the FIVE-YEAR TOTAL SOURCE OF FUNDS to avoid multiple counting of the same funds.

## 2007-2011 Proposed Capital Improvement Program

	Estimated 2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	5-Year Total
USE OF FUNDS							
Construction Projects							
Water Pollution Control Managed	Projects						
Administration Building & Gate Security Improvements	35,000		-				
Computer & Instrumentation Improvements	13,000						
Filter Influent & Effluent Meter Replacement	110,000						
Filter Influent Pumps 1 Thru 4 Controller Replacement	231,000						
Filtration Action Plan - Valve Replacement			600,000	2,000,000	2,000,000	2,000,000	6,600,000
Headworks Redundancy Modifications	1,000						
Plant Electrical Reliability	777,000			5,000,000	50,000,000		55,000,000
Raw Sewage & Effluent Sampling Stations	19,000						
Technical Services Building	25,000						
Warehousing Facility Addition			500,000				500,000
Alternative Disinfection	518,000	6,300,000					6,300,000
2. Bio-solids Master Plan		1,000,000					1,000,000
<ol> <li>Dissolved Air Flotation         Pressure Retention Tank &amp;         Valves     </li> </ol>	402,000		402,000		402,000		804,000
4. Fire Line Replacement		350,000	200,000	200,000			750,000
Inactive Lagoons Bio-Solids     Removal Study	38,000	25,000	100,000	_55,553			125,000
6. Land Management & Improvements	155,000	150,000	150,000	150,000			450,000
7. M5, Ring Buss, & Cable Replacement		1,200,000	7,000,000				8,200,000

## 2007-2011 Proposed Capital Improvement Program

			oc or ranac				
USE OF FUNDS (CONT'D.)	Estimated 2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	5-Year Total
Construction Projects						,	
Water Pollution Control Managed	d Projects						
8. Scum Digestion	-	250,000	750,000				1,000,000
9. WPCP Reliability Improvements	75,490,000	2,009,000	,				2,009,000
Total Water Pollution Control Managed Projects	77,814,000	11,284,000	9,702,000	7,350,000	52,402,000	2,000,000	82,738,000
Watershed Protection Managed I	Projects						
ESD MIS Improvements	671,000						
Lab Information Management System	349,000						
Revised South Bay Action Plan - Industrial Recycle/Reuse	100,000						
Salt Marsh Restoration	99,000						
South Bay Water Recycling Program	200,000						
10. Revised South Bay Action Plan - SBWR Extension	38,888,000	391,000	391,000	391,000	391,000	391,000	1,955,000
Total Watershed Protection Managed Projects	40,307,000	391,000	391,000	391,000	391,000	391,000	1,955,000
Recurring Projects							
11. Equipment Replacement	2,505,000	1,525,000	1,525,000	1,525,000	1,525,000	1,525,000	7,625,000
12. Plant Infrastructure Improvements	9,681,000	5,827,000	6,232,000	6,251,000	6,338,000	7,390,000	32,038,000
13. Unanticipated/Critical Repairs	332,000	250,000	250,000	250,000	250,000	250,000	1,250,000
Total Recurring Projects	12,518,000	7,602,000	8,007,000	8,026,000	8,113,000	9,165,000	40,913,000
<b>Total Construction Projects</b>	130,639,000	19,277,000	18,100,000	15,767,000	60,906,000	11,556,000	125,606,000
			_				

## 2007-2011 Proposed Capital Improvement Program

USE OF FUNDS (CONT'D.)	Estimated 2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	5-Year Total
Non-Construction							
General Non-Construction							
Arbitrage Rebate Payment	300,000						
CIP Action Team	13,000						
City Hall Furniture, Fixtures and	12,000						
Equipment	12,000						
City Hall Occupancy	4,000						
14. Payment for Clean Water Financing Authority Trustee	70,000	82,000	82,000	82,000	82,000	82,000	410,000
15. State Revolving Fund Loan Repayment	4,464,000	4,464,000	4,464,000	4,464,000	4,464,000	4,464,000	22,320,000
16. Transfer to Clean Water Financing Authority Debt Service Payment Fund	1,697,000	6,806,000	7,007,000	7,023,000	9,433,000	11,716,000	41,985,000
Total General Non-Construction	6,560,000	11,352,000	11,553,000	11,569,000	13,979,000	16,262,000	64,715,000
Contributions, Loans and Transfe	rs to General Fເ	ınd					
City Hall Operating and Maintenance	13,000						
Total Contributions, Loans and Transfers to General Fund	13,000						
Contributions, Loans and Transfe	rs to Special Fu	ınds					
City Hall Debt Service Fund		8,300	8,500	8,500	8,500	8,500	42,300
Total Contributions, Loans and Transfers to Special Funds		8,300	8,500	8,500	8,500	8,500	42,300
Reserves							
Reserve for Bio-solids Plans				5,000,000	8,000,000	15,000,000	28,000,000
17. Reserve for Equipment Replacement		5,000,000		3,23,300	-,,	, ,	5,000,000

## 2007-2011 Proposed Capital Improvement Program

	Estimated <b>2005-2006</b>	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	5-Year Total
USE OF FUNDS (CONT'D.)							
Non-Construction							
Reserves							
18. Reserve for GRS Inc. Agreement		1,000,000					1,000,000
19. Reserve for Rate Studies		200,000					200,000
Total Reserves		6,200,000		5,000,000	8,000,000	15,000,000	34,200,000
Total Non-Construction	6,573,000	17,560,300	11,561,500	16,577,500	21,987,500	31,270,500	98,957,300
Ending Fund Balance	28,281,705	19,475,405	17,312,905	15,646,405	17,662,905	13,535,405	13,535,405
TOTAL USE OF FUNDS	165,493,705	56,312,705	46,974,405	47,990,905	100,556,405	56,361,905	238,098,705
* The 2006-2007 through 2009-201	0 Ending Balances a	re excluded from th	e FIVE-YEAR TOT	ALLISE OF FUND	S to avoid multiple	counting of same f	ınde

## 2007-2011 Proposed Capital Improvement Program **Detail of Capital Projects**

#### 1. Alternative Disinfection

CSA:

**Environmental and Utility Services** 

Initial Start Date: 2nd Qtr. 2004

**CSA Outcome:** 

Reliable Utility Infrastructure

**Revised Start Date:** 

Department:

**Environmental Services** 

Initial Completion Date: 3rd Qtr. 2007

**Council District:** 

Revised Completion Date: 3rd Qtr. 2008

Location:

Water Pollution Control Plant

Description:

The WPCP disinfects the filtered effluent using chlorine and neutralizes the chlorine residual with sulfur dioxide prior to discharge. Chlorine and sulfur dioxide are delivered to the Plant in railcar containers. To minimize risk of damage, this project provides funding for the design and construction of facilities to replace the gaseous chlorine and sulfer dioxide system with a liquid sodium hypochlorite and sodium bisulfite system. The estimated start date reflects the start of the alternative disinfection study, which preceded the construction project described here. The construction project will begin in 2006-2007. The estimated end date reflects the anticipated

project completion.

Justification:

The presence of large quantities of sulfur dioxide and chlorine gas poses a high risk of damage in an event of massive sudden release. Since the terrorist attack event on September 11, 2001, reducing the potential risk of a massive catastrophe is the goal.

			E	XPENDIT	URE SCH	EDULE (0	00'S)				
Cost Elements	Prior Years	2005-06 Appn.	2005-06 Estimate	2006-07	2007-08	2008-09	2009-10	2010-11	5-Year Total	Beyond 5-Year	Project Total
Design		518	518								518
Construction				6,300					6,300		6,300
TOTAL		518	518	6,300			···		6,300		6,818
			FUN	IDING SO	URCE SCI	HEDULE (	000'S)				
San José-Santa Clara Treatment Plant Capital Fund		518	518	6,300					6,300		6,818
TOTAL		518	518	6,300					6,300		6,818
			ANNUA	L OPERA	TING BUD	GET IMP	ACT (000'	S)			
Operating						3,000	3,075	3,152		_	
TOTAL						3,000	3,075	3,152			<del></del>

#### Major Changes in Project Cost:

2005-2009 CIP - increase of \$4.5 million to allocate funds from prior Reserve for Alternate Disinfection. 2007-2011 CIP - increase of \$1.8 million due to higher than anticipated construction costs.

Notes:

FY Initiated:

2003-2004

Redevelopment Area:

N/A

**Initial Project Budget:** 

\$500,000

SNI Area:

N/A

Appn. #:

## 2007-2011 Proposed Capital Improvement Program Detail of Capital Projects

#### 2. Bio-solids Master Plan

CSA:

**Environmental and Utility Services** 

Initial Start Date: 3rd Qtr 2006

**CSA Outcome:** 

Healthy Streams, Rivers, Marsh and Bay

**Revised Start Date:** 

Department:

Environmental Services

Initial Completion Date: 2nd Qtr 2008

**Council District:** 

4

**Revised Completion Date:** 

Location:

Water Pollution Control Plant

Description:

This project will develop a master plan to evaluate existing digestion and residual sludge management (RSM) facilities in terms of space, treatment methods, and personnel resources. It will identify ways to most economically and effectively process biosolids in the near term, and future decades. The master plan will also consider odor issues and optimization of buffer lands,

including A-18.

Justification:

There are infrastructure improvements needed in RSM, a backlog of wastes to be removed, and significant repairs and possible upgrades due for the digesters. Because of the recent acquiring of A-18, the approved ongoing planning of an overall site master plan, and the potential odor issues, the biggest land uses of the facility(solids handling) should be evaluated for long-term siting of facilities and the methods used for the processing of biosolids. The repairs and changes made now will set the process for the next few decades, and so should not be based solely on evaluations and practices from 20 or more years ago.

	EXPENDITURE SCHEDULE (000'S)										
Cost Elements	Prior Years	2005-06 Appn.	2005-06 Estimate	2006-07	2007-08	2008-09	2009-10	2010-11	5-Year Total	Beyond 5-Year	Project Total
Master Plan/Study				1,000					1,000		1,000
TOTAL				1,000		1,41,-11,-1			1,000		1,000
			FUN	DING SO	JRCE SCI	HEDULE (	000'S)				
San José-Santa Clara Treatment Plant Capital Fund				1,000					1,000		1,000
TOTAL				1,000					1,000		1,000

#### ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

None

Notes:

FY Initiated:

2006-2007

Redevelopment Area:

N/A

**Initial Project Budget:** 

\$1,000,000

SNI Area:

N/A

Appn. #:

## 2007-2011 Proposed Capital Improvement Program Detail of Capital Projects

#### 3. Dissolved Air Flotation Pressure Retention Tank & Valves

CSA:

**Environmental and Utility Services** 

Initial Start Date: 3rd Qtr. 2004

**CSA Outcome:** 

Reliable Utility Infrastructure

Revised Start Date: 2nd Qtr. 2005

Department:

Environmental Services

Initial Completion Date: 3rd Qtr. 2010

Council District:

4

Revised Completion Date: 4th Qtr. 2016

Location:

Water Poliution Control Plant

This project will replace 15 of the 16 pressurized tanks and their valves located in the sludge

processing area.

Justification:

Description:

The pressurized steel tanks have outlived their useful service lives and require replacement to

ensure safety and process reliability.

			E	XPENDIT	URE SCH	EDULE (0	00'S)				
Cost Elements	Prior Years	2005-06 Appn.	2005-06 Estimate	2006-07	2007-08	2008-09	2009-10	2010-11	5-Year Total	Beyond 5-Year	Project Total
Design		30	30		30		30		60	30	120
Construction		342	342		342		342		684	341	1,367
Engineering & Inspection		30	30		30		30		60	30	120
TOTAL		402	402		402		402		804	401	1,607
			FUN	DING SOL	JRCE SCI	HEDULE (	000'S)				
San José-Santa Clara Treatment Plant Capital Fund		402	402		402		402		804	401	1,607
TOTAL		402	402		402		402		804	401	1,607
			ANNUA	L OPERA	TING BUE	GET IMP	ACT (000'	S)			
None											

Major Changes in Project Cost:

None

Notes:

FY Initiated:

2004-2005

Redevelopment Area:

N/A

**Initial Project Budget:** 

\$1,600,000

SNI Area:

N/A

Appn. #:

## 2007-2011 Proposed Capital Improvement Program **Detail of Capital Projects**

#### 4. Fire Line Replacement

CSA:

**Environmental and Utility Services** 

Initial Start Date: 3rd Qtr 2006

**CSA Outcome:** 

Reliable Utility Infrastructure

Revised Start Date:

Department:

**Environmental Services** 

Initial Completion Date: 2nd Qtr 2009

**Council District:** 

**Revised Completion Date:** 

Location:

Water Pollution Control Plant

Description:

The project will require replacement of a total of 14,400 ft. of ductile iron pipe, 34 fire hydrants, 34

gate valves, and additional isolation valves that are not currently in the system.

Justification:

The existing fire protection water pipelines, which were first installed in the 1970's are aging and

corroded, and are due for replacement. The existing system is unreliable and both frequency and

cost of repairs have been increasing.

Prior Years	2005-06	2005-06								
	Appn.	Estimate	2006-07	2007-08	2008-09	2009-10	2010-11	5-Year Total	Beyond 5-Year	Project Total
			350	200	200			750		750
			350	200	200			750		750
		FUN	DING SOL	JRCE SCH	EDULE (	000'S)				
			350	200	200			750		750
***************************************		~ ~	350	200	200		_	750		750
			FUN	350 FUNDING SOL 350	350 200 FUNDING SOURCE SCH 350 200	350 200 200 FUNDING SOURCE SCHEDULE ( 350 200 200 350 200 200	350 200 200 FUNDING SOURCE SCHEDULE (000'S) 350 200 200 350 200 200	350 200 200 FUNDING SOURCE SCHEDULE (000'S) 350 200 200 350 200 200	350 200 200 750 FUNDING SOURCE SCHEDULE (000'S)  350 200 200 750  350 200 200 750	350 200 200 750  FUNDING SOURCE SCHEDULE (000'S)  350 200 200 750

#### ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

None

Notes:

FY Initiated:

2006-2007

Redevelopment Area:

N/A

**Initial Project Budget:** 

\$750,000

SNI Area:

N/A

Appn. #:

## 2007-2011 Proposed Capital Improvement Program Detail of Capital Projects

#### 5. Inactive Lagoons Bio-Solids Removal Study

CSA:

**Environmental and Utility Services** 

Initial Start Date: 3rd Qtr. 2002

**CSA Outcome:** 

Reliable Utility Infrastructure

Revised Start Date:

Department:

**Environmental Services** 

Initial Completion Date: 2nd Qtr. 2008

Council District:

1

**Revised Completion Date:** 

Location:

Water Pollution Control Plant

Description:

The Residual Sludge Management (RSM) facility currently has inactive lagoons, which contain about 320,000 dry tons of old, toxic bio-solid stockpiles constructed between 1960 and 1967, before vigorous and effective source control and pretreatment programs were implemented. Recently, these stockpiles have been analyzed and found to contain lead and cadmium at levels higher than Department of Toxic Substances Control (DTSC) guidelines. Possible disposal alternatives require further regulator and engineering feasibility evaluation. The Inactive Lagoons Bio-Solids Removal Study described here will complete the feasibility evaluation in 2007-2008. A separate Reserve for Bio-Solids Plans has been established to implement the findings.

Justification:

There is a shortage of storage space, as older stockpiles have occupied badly needed RSM space. Additionally, there is a tendency for environmental regulations to become more complex & cumbersome with time. The plant can not postpone this disposal issue much longer without risking significant increases in costs. Tackling the issue now will free up the badly needed space and conserve limited resources.

				XPENDIT	URE SCH	EDULE (0	00'S)				
Cost Elements	Prior Years	2005-06 Appn.	2005-06 Estimate	2006-07	2007-08	2008-09	2009-10	2010-11	5-Year Total	Beyond 5-Year	Project Total
Master Plan/Study		38	38	25	100				125		163
TOTAL		38	38	25	100				125		163
			FUN	IDING SO	URCE SCI	HEDULE (	000'S)				
San José-Santa Clara Treatment Plant Capital Fund		38	38	25	100				125		163
TOTAL		38	38	25	100		_		125		163
			ANNUA	L OPERA	TING BUE	GET IMP	ACT (000'	S)			

### None

#### **Major Changes in Project Cost:**

2005-2009 CIP - decrease of \$2.5 million to reflect re-scoping of this project to cover the reevaluation of alternatives for the proper disposal of toxic bio-solids. Once this evaluation is complete, additional funding will most likely be requested to complete the removal.

2007-2011 CIP - decrease of \$1.8 million to reflect the shift of funding for Bio-Solids removal to the Reserve for Bio-Solids Plans.

#### Notes:

Formerly part of an ongoing allocation titled "Residual Sludge Facilities".

FY Initiated:

2003-2004

Redevelopment Area:

N/A N/A

**Initial Project Budget:** 

\$4,500,000

SNI Area:

Appn. #:

## 2007-2011 Proposed Capital Improvement Program Detail of Capital Projects

#### 6. Land Management & Improvements

CSA:

**Environmental and Utility Services** 

Initial Start Date: 2nd Qtr. 1997

**CSA Outcome:** 

Healthy Streams, Rivers, Marsh and Bay

**Revised Start Date:** 

Department:

Environmental Services

Initial Completion Date: 1st Qtr. 2007

Council District:

.

Revised Completion Date: 2nd Qtr. 2009

Location:

Water Pollution Control Plant

Description:

This project provides resources for the environmental planning and review of technical issues related to the development and evaluation of possible alternative uses of salt pond A-18 and the San José/Santa Clara Water Pollution Control Plant buffer lands. The project also provides for the implementation of the planning effort, with Council approval, after the five-year budget period.

Justification:

The department purchased salt pond A-18 in 2003. As the owner of pond A-18, the City will be required to plan for future uses of A-18. In addition, the City is also in negotiations with the State Water Resources Control Board for the management and restoration of the Moseley tract.

				XPENDIT	URE SCH	EDULE (0	00'S)				
Cost Elements		2005-06 Appn.	2005-06 Estimate	2006-07	2007-08	2008-09	2009-10	2010-11	5-Year Total	Beyond 5-Year	Project Total
Property & Land	20,235	155	155	150	150	150			450		20,840
TOTAL	20,235	155	155	150	150	150			450		20,840
			FUN	IDING SO	URCE SCI	HEDULE (	000'S)				
San José-Santa Clara Treatment Plant Capital Fund	20,235	5 155	155	150	150	150			450		20,840
TOTAL	20,235	155	155	150	150	150		-	450		20,840
			ANNIIA	I OPERA	TING BUI	GET IMP	ACT (000'	S)			

#### ANNUAL OPERATING BUDGET IMPACT (000'S)

#### None

#### Major Changes in Project Cost:

1999-2003 CIP - increase of \$15 million to address scope changes.

2005-2009 CIP - increase of \$500,000 for alternative use analysis, property management, and development of salt pond A18.

2007-2011 CIP - decrease of \$5 million to address scope changes.

#### **Notes**

Funding for the restoration of the Moseley land tract, formerly funded in the Salt Marsh Restoration appropriation, is now programmed in this Land Management and Improvements category. This project was previously titled "Land Acquisitions and Improvements."

FY Initiated:

1996-1997

Redevelopment Area:

N/A

**Initial Project Budget:** 

\$10,100,000

SNI Area:

N/A

Appn. #:

## 2007-2011 Proposed Capital Improvement Program Detail of Capital Projects

#### 7. M5, Ring Buss, & Cable Replacement

CSA:

**Environmental and Utility Services** 

Initial Start Date: 3rd Qtr 2006

**CSA Outcome:** 

Reliable Utility Infrastructure

Revised Start Date:

Department:

Environmental Services

Initial Completion Date: 2nd Qtr 2008

Council District:

4

**Revised Completion Date:** 

Location:

•

Water Pollution Control Plant

Description:

This project will involve design, procurement and installation of a new, 4.16 kV switchgear, installation of new cables, and replacement of critical old 4.16 kV switchgear to form a ring buss

arrangement for the 4.16 kV distribution system.

Justification:

The design of the existing plant 4.16 kV distribution system has inherent weaknesses in terms of reliability and availability to mitigate a common mode failure, i.e., seismic event or fire. The creation of a ring buss system and replacement of the critical cables will improve system reliability and availability. This project will provide the foundation for the electrical master plan reliability project.

	EXPENDITURE SCHEDULE (000'S)										
Cost Elements	Prior Years	2005-06 Appn.	2005-06 Estimate	2006-07	2007-08	2008-09	2009-10	2010-11	5-Year Total	Beyond 5-Year	Project Total
Construction				1,200	7,000				8,200		8,200
TOTAL				1,200	7,000				8,200		8,200
			FUN	DING SOL	JRCE SCI	HEDULE (	000'S)				
San José-Santa Clara Treatment Plant Capital Fund				1,200	7,000				8,200		8,200
TOTAL				1,200	7,000				8,200		8,200
			ANNUA	L OPERA	TING BUD	GET IMP	ACT (000'	S)	-		

None

Major Changes in Project Cost:

None

Notes:

FY Initiated:

2006-2007

Redevelopment Area:

N/A

**Initial Project Budget:** 

\$8,200,000

SNI Area:

N/A

Appn. #:

## 2007-2011 Proposed Capital Improvement Program Detail of Capital Projects

#### 8. Scum Digestion

CSA:

**Environmental and Utility Services** 

Initial Start Date: 3rd Qtr 2006

**CSA Outcome:** 

Healthy Streams, Rivers, Marsh and Bay

Revised Start Date:

Department:

Environmental Services

Initial Completion Date: 2nd Qtr 2008

**Council District:** 

.

**Revised Completion Date:** 

Location:

Water Pollution Control Project

**Description:** 

This project will involve design and construction of scum mixers on top of two existing digesters and additional digester mixing and scum injection equipment to assist with breaking up and mixing of any scum mat formation in the digesters. This project will also include the design and construction of piping, valves, and instrumentation, as necessary, to feed scum and to monitor scum flows and digester gas production at the two digesters.

Justification:

Plant scum is currently collected from plant processes, separated and disposed off-site. While the separation of scum has assisted in reducing maintenance and potential process upsets at the Plant, the cost to haul and dispose of the scum is considerable. Digestion of scum has been identified as a feasible and environmentally optimal solution for scum disposal.

				XPENDIT	URE SCH	EDULE (0	00'S)				
Cost Elements	Prior Years	2005-06 Appn.	2005-06 Estimate	2006-07	2007-08	2008-09	2009-10	2010-11	5-Year Total	Beyond 5-Year	Project Total
Construction				250	750				1,000		1,000
TOTAL			, , , , , , , , , , , , , , , , , , , ,	250	750				1,000		1,000
			FUN	DING SO	JRCE SCI	HEDULE (	000'S)				
San José-Santa Clara Treatment Plant Capital Fund				250	750				1,000		1,000
TOTAL				250	750				1,000		1,000
			ANNUA	L OPERA	TING BUD	GET IMP	ACT (000'	S)			

None

Major Changes in Project Cost:

None

Notes:

FY Initiated:

2006-2007

Redevelopment Area:

N/A

**Initial Project Budget:** 

\$1,000,000

SNI Area:

N/A

Appn. #:

## 2007-2011 Proposed Capital Improvement Program Detail of Capital Projects

#### 9. WPCP Reliability Improvements

CSA:

**Environmental and Utility Services** 

Initial Start Date: 2nd Qtr. 2000

**CSA Outcome:** 

Reliable Utility Infrastructure

Revised Start Date: 2nd Qtr. 2003

Department:

Environmental Services

Initial Completion Date: 2nd Qtr. 2008

Council District:

1

**Revised Completion Date:** 

Location:

Water Pollution Control Plant

Description:

This project will improve the Plant's ability to handle wet weather flows and improve the reliability of several of the plant's critical systems, such as headworks, filtration, and major pumping stations. The project will also look at ways to improve the reliability and efficiency of producing recycled water, as well as water discharge to the Bay. Funding in 2006-2007 provides an allocation to evaluate operating processes, provide for operating manual development, and fund start up costs for the headworks upon completion of the WPCP Reliability Improvements project.

Justification:

Over the past several winters, the Plant has experienced wet weather flows that exceeded the original hydraulic design of some of the Plant's treatment facilities. These periodic high flows have caused sewage overflows and process upsets that make the Plant vulnerable to future incidents. Improvements in the Plant's ability to handle wet weather flows in a reliable manner require the rehabilitation or replacement of existing facilities and/or the addition of new facilities.

				XPENDIT	URE SCH	EDULE (0	00'S)				
Cost Elements	Prior Years	2005-06 Appn.	2005-06 Estimate	2006-07	2007-08	2008-09	2009-10	2010-11	5-Year Total	Beyond 5-Year	Project Total
Development	770										770
Design	3,450										3,450
Construction	7,102	75,490	75,490	2,009					2,009		84,601
TOTAL	11,322	75,490	75,490	2,009					2,009		88,821
			FUN	IDING SOL	JRCE SCI	HEDULE (	000'S)				
San José-Santa Clara Treatment Plant Capital Fund	11,322	75,490	75,490	2,009					2,009		88,821
TOTAL	11,322	75,490	75,490	2,009					2,009		88,821
		-	ANNUA	L OPERA	TING BUD	GET IMP	ACT (000'	S)		, .	

#### Major Changes in Project Cost:

2003-2007 CIP - increase of \$40 million to fund anticipated reliability project.

2004-2008 CIP - increase of \$11 million based on revised estimates at 10% design completion.

2005-2009 CIP - increase of \$6 million based on revised estimates at 90% design completion.

2006-2010 CIP - increase of \$25 million to fund higher than anticipated construction costs related to the price escalation of cement, reinforced concrete pipe, and steel.

Notes:

None

FY Initiated:

1998-1999

Redevelopment Area:

N/A

Initial Project Budget:

\$4,000,000

SNI Area:

N/A

Appn. #:

## 2007-2011 Proposed Capital Improvement Program **Detail of Capital Projects**

### 10. Revised South Bay Action Plan - SBWR Extension

CSA:

**Environmental and Utility Services** 

**Initial Start Date:** 

Ongoing

**CSA Outcome:** 

Healthy Streams, Rivers, Marsh and Bay

**Revised Start Date:** 

Department:

**Environmental Services** 

**Initial Completion Date: Revised Completion Date:** 

**Council District:** 

Ongoing

Location:

Water Pollution Control Plant

Description:

The National Pollutant Discharge Elimination System (NPDES) permit requires continued development of the South Bay Water Recycling (SBWR) system to increase use of recycled water and further reduce Plant discharge. This allocation consists of the completion of the design and construction of SBWR Phase II facilities in Santa Clara and Milpitas, and extension of a recycled water transmission line to serve the planned Metcalf Energy Center in South San José and the new City Hall. In addition, this allocation funds future recycled water projects not yet identified.

Justification:

The Revised SBAP, adopted by the Council in June 2001, provides for an integrated, cost-effective combination of water conservation, industrial reuse and water recycling projects. The SBWR Extension Project includes construction of extensions to the existing recycled water distribution system that will provide additional capacity and ensure diversification of a beneficial resource while reducing flow to the Bay.

			=	XPENDIT	URE SCH	EDULE (0	00'S)				
Cost Elements	Prior Years	2005-06 Appn.	2005-06 Estimate	2006-07	2007-08	2008-09	2009-10	2010-11	5-Year Total	Beyond 5-Year	Project Total
Development Property & Land Design											
Construction		38,888	38,888	391	391	391	391	391	1,955		
TOTAL		38,888	38,888	391	391	391	391	391	1,955		
			FUN	DING SO	JRCE SCI	HEDULE (	000'S)				
San José-Santa Clara Treatment Plant Capital Fund		38,888	38,888	391	391	391	391	391	1,955		
TOTAL		38,888	38,888	391	391	391	391	391	1,955		· · · · · · · · · · · · · · · · · · ·
			ANNUA	L OPERA	TING BUE	GET IMP	ACT (000'	S)			

None

Major Changes in Project Cost:

N/A

Notes:

Project schedule dates and selected budget information are not provided due to the ongoing nature of this project. A \$391,000 annual allocation beginning in 2005-2006 represents recycled water pipeline funding from Calpine for their share of the pipeline to the Metcalf Energy Center. This allocation is anticipated to fund future recycled water projects.

FY Initiated:

Ongoing

Redevelopment Area:

N/A

**Initial Project Budget:** 

SNI Area:

N/A

Appn. #:

## 2007-2011 Proposed Capital Improvement Program Detail of Capital Projects

#### 11. Equipment Replacement

CSA:

**Environmental and Utility Services** 

Initial Start Date:

Ongoing

CSA Outcome:

Reliable Utility Infrastructure

**Revised Start Date:** 

Department:

Environmental Services

Initial Completion Date:

Ongoing

**Council District:** 

4

**Revised Completion Date:** 

Location:

Water Pollution Control Plant

Description:

This project provides for the replacement and rehabilitation of WPCP equipment. Equipment anticipated to be replaced or rehabilitated within the five year horizon includes air compressors, tanks, pumps, motors, control systems, valves, heat exchangers, engine auxiliaries, lab instruments and other equipment as required. Existing engine-generators and engine-blowers will be retrofitted to meet Air Quality Board emission requirements.

Justification:

Replacement and rehabilitation of WPCP equipment is necessary as a result of wear, obsolescence or regulatory requirements. Replacement and rehabilitation will ensure continued efficient operation of the Plant facilities.

Equipment  FOTAL  San José-Santa Clara	EXPENDITURE SCHEDULE (000'S)										
Cost Elements	Prior Years	2005-06 Appn.	2005-06 Estimate	2006-07	2007-08	2008-09	2009-10	2010-11	5-Year Total	Beyond 5-Year	Project Total
Equipment		2,505	2,505	1,525	1,525	1,525	1,525	1,525	7,625		
TOTAL		2,505	2,505	1,525	1,525	1,525	1,525	1,525	7,625		
			FUN	IDING SO	JRCE SCI	HEDULE (	000'S)				
San José-Santa Clara Treatment Plant Capital Fund		2,505	2,505	1,525	1,525	1,525	1,525	1,525	7,625		
TOTAL	***************************************	2,505	2,505	1,525	1,525	1,525	1,525	1,525	7,625		
			ANNUA	L OPERA	TING BU	GET IMP	ACT (000'	S)			

#### None

Major Changes in Project Cost:

N/A

Notes

Project schedule dates and selected budget information are not provided due to the ongoing nature of this project.

FY Initiated:

Ongoing

Redevelopment Area:

N/A

**Initial Project Budget:** 

SNI Area:

N/A

Appn. #:

## 2007-2011 Proposed Capital Improvement Program **Detail of Capital Projects**

#### 12. Plant Infrastructure Improvements

CSA:

**Environmental and Utility Services** 

**Initial Start Date:** 

Ongoing

**CSA Outcome:** 

Reliable Utility Infrastructure

**Revised Start Date:** 

Department:

**Environmental Services** 

Ongoing

**Council District:** 

**Initial Completion Date: Revised Completion Date:** 

Location:

Water Pollution Control Plant

**Description:** 

This project provides for improvements, rehabilitation, or replacement of existing Plant infrastructure and fixed works: process facilities; buildings, structures and supporting facilities; piping and auxiliaries; instrumentation; and electrical generation, distribution and control systems.

Justification:

Rehabilitation, improvements, and replacement of capital infrastructure are necessary to maintain process viability and to ensure regulatory compliance, structural integrity, reliability, functionality,

and safety of Plant buildings and process facilities for intended uses.

Construction  OTAL  Gan José-Santa Clara  Treatment Plant Capital  Tund		EXPENDITURE SCHEDULE (000'S)											
Cost Elements	Prior Years	2005-06 Appn.	2005-06 Estimate	2006-07	2007-08	2008-09	2009-10	2010-11	5-Year Total	Beyond 5-Year	Project Total		
Construction		9,681	9,681	5,827	6,232	6,251	6,338	7,390	32,038				
TOTAL		9,681	9,681	5,827	6,232	6,251	6,338	7,390	32,038				
			FUN	IDING SO	JRCE SCI	HEDULE (	000'S)						
San José-Santa Clara Treatment Plant Capital Fund		9,681	9,681	5,827	6,232	6,251	6,338	7,390	32,038				
TOTAL		9,681	9,681	5,827	6,232	6,251	6,338	7,390	32,038				
		_	AMMILA	LOPERA	TING BUI	CET IMP	VCT (000,	S)					

None

**Major Changes in Project Cost:** 

N/A

Project schedule dates and selected budget information are not provided due to the ongoing nature of this project.

FY Initiated:

Ongoing

Redevelopment Area:

N/A

Initial Project Budget:

SNI Area:

N/A

Appn. #:

## 2007-2011 Proposed Capital Improvement Program Detail of Capital Projects

#### 13. Unanticipated/Critical Repairs

CSA:

**Environmental and Utility Services** 

Initial Start Date:

**Ongoing** 

**CSA Outcome:** 

Reliable Utility Infrastructure

**Revised Start Date:** 

Department:

**Environmental Services** 

Initial Completion Date:

Ongoing

**Council District:** 

4

Revised Completion Date:

Location:

Water Pollution Control Plant

Description:

This allocation provides funding for any unanticipated and/or critical repairs.

Justification:

It is necessary to have funds available to pay for unforeseen conditions discovered during any

project construction phase or repairs to Plant infrastructure to quickly respond to needs.

		EXPENDITURE SCHEDULE (000'S)									
Cost Elements	Prior Years	2005-06 Appn.	2005-06 Estimate	2006-07	2007-08	2008-09	2009-10	2010-11	5-Year Total	Beyond 5-Year	Project Total
Construction		332	332	250	250	250	250	250	1,250		
TOTAL		332	332	250	250	250	250	250	1,250		
			FUN	IDING SOL	JRCE SCI	HEDULE (	000'S)				
San José-Santa Clara Treatment Plant Capital Fund		332	332	250	250	250	250	250	1,250		
TOTAL		332	332	250	250	250	250	250	1,250		

#### ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

N/A

Notes:

Project schedule dates and selected budget information are not provided due to the ongoing nature of this project.

FY Initiated:

Ongoing

Redevelopment Area:

N/A

**Initial Project Budget:** 

SNI Area:

N/A

Appn. #:

## 2007-2011 Proposed Capital Improvement Program Detail of Capital Projects

#### 14. Payment for Clean Water Financing Authority Trustee

CSA:

**Environmental and Utility Services** 

Initial Start Date:

Ongoing

**CSA Outcome:** 

Reliable Utility Infrastructure

**Revised Start Date:** 

Department:

Environmental Services

Initial Completion Date:

Ongoing

**Council District:** 

4

**Revised Completion Date:** 

Location:

Water Pollution Control Plant

Description:

This project provides for administrative costs of the San José/Santa Clara Clean Water Financing Authority related to bond issues, including necessary audits, transfers, registration, investment,

and disbursement fees.

Justification:

Services from the Clean Water Financing Authority are necessary to administer financing issued for

the Plant.

	EXPENDITURE SCHEDULE (000'S)											
Cost Elements	Prior Years	2005-06 Appn.	2005-06 Estimate	2006-07	2007-08	2008-09	2009-10	2010-11	5-Year Total	Beyond 5-Year	Project Total	
Program Management		70	70	82	82	82	82	82	410			
TOTAL		70	70	82	82	82	82	82	410			
			FUN	DING SO	JRCE SC	HEDULE (	000'S)					
San José-Santa Clara Treatment Plant Capital Fund		70	70	82	82	82	82	82	410			
TOTAL		70	70	82	82	82	82	82	410			

#### ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

N/A

Notes:

Project schedule dates and selected budget information are not provided due to the ongoing nature of this project.

FY Initiated:

Ongoing

Redevelopment Area:

N/A

**Initial Project Budget:** 

SNI Area:

N/A

Appn. #:

## 2007-2011 Proposed Capital Improvement Program Detail of Capital Projects

### 15. State Revolving Fund Loan Repayment

CSA:

**Environmental and Utility Services** 

Initial Start Date: 3rd Qtr. 1998

**CSA Outcome:** 

Healthy Streams, Rivers, Marsh and Bay

**Revised Start Date:** 

Department:

**Environmental Services** 

Initial Completion Date: 2nd Qtr. 2019

**Council District:** 

4

**Revised Completion Date:** 

Location:

4

Water Pollution Control Plant

**Description:** 

This allocation provides for the repayment of low interest State loans awarded for South Bay Water

Recycling projects.

Justification:

This is a contractual obligation. The loans will be repaid over a 20-year period.

	EXPENDITURE SCHEDULE (000'S)										
Cost Elements	Prior Years	2005-06 Appn.	2005-06 Estimate	2006-07	2007-08	2008-09	2009-10	2010-11	5-Year Total	Beyond 5-Year	Project Total
Debt Service	27,993	4,464	4,464	4,464	4,464	4,464	4,464	4,464	22,320	31,248	86,025
TOTAL	27,993	4,464	4,464	4,464	4,464	4,464	4,464	4,464	22,320	31,248	86,025
			FUN	DING SO	URCE SCI	HEDULE (	000'S)				
San José-Santa Clara Treatment Plant Capital Fund	27,993	4,464	4,464	4,464	4,464	4,464	4,464	4,464	22,320	31,248	86,025
TOTAL	27,993	4,464	4,464	4,464	4,464	4,464	4,464	4,464	22,320	31,248	86,025
			ANNUA	L OPERA	TING BUD	GET IMP	ACT (000'	S)	_		

None

Major Changes in Project Cost:

None

Notes:

FY Initiated:

1998-1999

Redevelopment Area:

N/A

**Initial Project Budget:** 

\$87,533,000

SNI Area:

N/A

Appn. #:

## 2007-2011 Proposed Capital Improvement Program **Detail of Capital Projects**

#### 16. Transfer to Clean Water Financing Authority Debt Service Payment Fund

CSA:

**Environmental and Utility Services** 

Initial Start Date: 2nd Qtr. 1996

**CSA Outcome:** 

Healthy Streams, Rivers, Marsh and Bay

Revised Start Date:

Department:

Initial Completion Date: 4th Qtr. 2020

**Council District:** 

**Revised Completion Date:** 

Location:

Water Pollution Control Plant

**Environmental Services** 

**Description:** 

This funding provides for the transfer of funds for the payment of the 1995 Series A and B Revenue

Bonds to the Clean Water Financing Authority Debt Service Payment Funds.

Justification:

Repayment of bonds is a requirement of the bonding agreement.

		EXPENDITURE SCHEDULE (000'S)										
Cost Elements	Prior Years	2005-06 Appn.	2005-06 Estimate	2006-07	2007-08	2008-09	2009-10	2010-11	5-Year Total	Beyond 5-Year	Project Total	
Debt Service	7,893	1,697	1,697	6,806	7,007	7,023	9,433	11,716	41,985	58,409	109,984	
TOTAL	7,893	1,697	1,697	6,806	7,007	7,023	9,433	11,716	41,985	58,409	109,984	
			FUN	DING SOL	JRCE SCI	HEDULE (	000'S)					
San José-Santa Clara Treatment Plant Capital Fund	7,892	1,697	1,697	6,806	7,007	7,023	9,433	11,716	41,985	58,409	109,983	
TOTAL	7,892	1,697	1,697	6,806	7,007	7,023	9,433	11,716	41,985	58,409	109,983	
			ANNUA	L OPERA	TING BUD	GET IMP	ACT (000	'S)				
None											•	

#### **Major Changes in Project Cost:**

2007-2011 CIP - Increase of \$73 million. This reflects a number of actions: 1) Beginning 2006-2007, the San Jose portion of the debt service payment of \$5.5 million annually will be included in this fund. This was previously reflected in the Sewer and Storm Use Charge Fund. 2) Bond A was refinanced on 11/15/2005 and Bond B was refinanced on 12/07/2005. These refinancings resulted in a savings of \$24,325,971. 3) Beginning 2008-2009, the amount includes a forecast of additional bond debt of \$50 million for the Electrical Reliability Project.

Notes:

FY Initiated:

2001-2002

Redevelopment Area:

N/A

**Initial Project Budget:** 

\$34,851,000

SNI Area:

N/A

Appn. #:

## 2007-2011 Proposed Capital Improvement Program Detail of Capital Projects

#### 17. Reserve for Equipment Replacement

CSA:

**Environmental and Utility Services** 

Initial Start Date:

N/A

**CSA Outcome:** 

Reliable Utility Infrastructure

**Revised Start Date:** 

Department:

**Environmental Services** 

Initial Completion Date:

N/A

**Council District:** 

1

Revised Completion Date:

Location:

Water Pollution Control Plant

Description:

Funding provides a reserve for replacement and rehabilitation of equipment which, due to age, wear, or obsolescence, must be replaced for the efficient operation of the Plant. Reserved funds are available to pay for unforeseen extraordinary costs to the extent that there are no other funds

budgeted for such purposes.

Justification:

Provisions of the Improvement Agreement between the San José/Santa Clara Clean Water Financing Authority and bondholders, as well as the adopted Master Agreements for Wastewater Treatment with the various tributary agencies, require that replacement funds be segregated.

				XPENDIT	URE SCH	EDULE (0	00'S)				
Cost Elements	Prior Years	2005-06 Appn.	2005-06 Estimate	2006-07	2007-08	2008-09	2009-10	2010-11	5-Year Total	Beyond 5-Year	Project Total
Reserve		5,000		5,000					5,000		
TOTAL		5,000		5,000					5,000		
			FUN	DING SO	JRCE SCI	HEDULE (	000'S)				
San José-Santa Clara Treatment Plant Capital Fund		5,000		5,000					5,000		
TOTAL	·	5,000		5,000					5,000		

#### ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

N/A

Notes:

Unexpended funds are rebudgeted each year.

FY Initiated:

Ongoing

Redevelopment Area:

N/A

**Initial Project Budget:** 

t:

SNI Area:

N/A

## 2007-2011 Proposed Capital Improvement Program Detail of Capital Projects

#### 18. Reserve for GRS Inc. Agreement

CSA:

**Environmental and Utility Services** 

Initial Start Date: 3rd Qtr. 2002

**CSA Outcome:** 

Reliable Utility Infrastructure

Revised Start Date:

Department:

**Environmental Services** 

Initial Completion Date: 2nd Qtr. 2008

**Council District:** 

1

**Revised Completion Date:** 

Location:

Water Pollution Control Plant

Description:

Funding provides a contingency reserve for an agreement with GRS, Inc. to construct a pipeline from the neighboring landfill to the Plant for the delivery of methane gas to fuel electrical

generators.

Justification:

The establishment of a contingency reserve is necessary to secure a price structure that guarantees the Plant savings on energy expenditures without the need for capital outlay. GRS, Inc. will assume all construction costs associated with the project in return for the Plant's guarantee to utilize the methane gas for five years.

EXPENDITURE SCHEDULE (000'S)											
Prior Years	2005-06 Appn.	2005-06 Estimate	2006-07	2007-08	2008-09	2009-10	2010-11	5-Year Total	Beyond 5-Year	Project Total	
	1,500		1,000					1,000		1,000	
	1,500		1,000					1,000		1,000	
		FUN	DING SOL	JRCE SCI	HEDULE (	000'S)					
	1,500		1,000					1,000		1,000	
	1,500		1,000		. 44.			1,000		1,000	
		Years Appn. 1,500 1,500 1,500	Prior 2005-06 2005-06 Years Appn. 2005-06 Estimate  1,500  1,500  FUN	Prior Years         2005-06 Appn.         2005-06 Estimate         2006-07           1,500         1,000         1,000           FUNDING SOL           1,500         1,000	Prior Years         2005-06 Appn.         2005-06 Estimate         2006-07 2007-08           1,500         1,000         1,000           FUNDING SOURCE SCHOOL           1,500         1,000	Prior Years         2005-06 Appn.         2005-06 Estimate         2006-07 2007-08 2008-09           1,500         1,000           FUNDING SOURCE SCHEDULE (           1,500         1,000	Prior Years         2005-06 Appn.         2005-06 Estimate         2006-07 2007-08 2008-09 2009-10           1,500         1,000           FUNDING SOURCE SCHEDULE (000'S)           1,500         1,000	Prior Years         2005-06 Appn.         2005-06 Estimate         2006-07 2007-08 2008-09 2009-10 2010-11           1,500         1,000           FUNDING SOURCE SCHEDULE (000'S)           1,500         1,000	Prior Years         2005-06 Appn.         2005-06 Estimate         2006-07         2007-08         2008-09         2009-10         2010-11         5-Year Total           1,500         1,500         1,000 <td rowsp<="" td=""><td>Prior Years         2005-06 Appn.         2006-07 Estimate         2007-08 2008-09 2009-10 2010-11 5-Year Total         Seyond 5-Year           1,500         1,000</td></td>	<td>Prior Years         2005-06 Appn.         2006-07 Estimate         2007-08 2008-09 2009-10 2010-11 5-Year Total         Seyond 5-Year           1,500         1,000</td>	Prior Years         2005-06 Appn.         2006-07 Estimate         2007-08 2008-09 2009-10 2010-11 5-Year Total         Seyond 5-Year           1,500         1,000

#### ANNUAL OPERATING BUDGET IMPACT (000'S)

None

#### Major Changes in Project Cost:

Unexpended funds are reduced each year after construction and benefit of the project was realized starting in 2003-2004.

Notes:

FY Initiated:

2002-2003

Redevelopment Area:

N/A

**Initial Project Budget:** 

\$2,300,000

SNI Area:

N/A

Appn. #:

## 2007-2011 Proposed Capital Improvement Program Detail of Capital Projects

#### 19. Reserve for Rate Studies

CSA:

**Environmental and Utility Services** 

Initial Start Date:

N/A

**CSA Outcome:** 

Reliable Utility Infrastructure

Revised Start Date:

Department:

Environmental Services

Initial Completion Date:

N/A

**Council District:** 

4

**Revised Completion Date:** 

Location:

Water Pollution Control Plant

Description:

This funding provides for a reserve for the study and review of rate structures within the industry in

the near future.

Justification:

Future uncertainty requires that provisions be made to ensure the continual operation of the facility. As a result, future costs and revenues must be controlled and managed. Rate studies are needed

periodically to access the industry norms and anticipate future changes whenever possible.

	EXPENDITURE SCHEDULE (000'S)										
Cost Elements	Prior Years	2005-06 Appn.	2005-06 Estimate	2006-07	2007-08	2008-09	2009-10	2010-11	5-Year Total	Beyond 5-Year	Project Total
Reserve		200		200					200		
TOTAL		200		200					200		
			FUN	DING SOL	JRCE SCI	HEDULE (	000'S)				
San José-Santa Clara Treatment Plant Capital Fund		200		200		·			200		
TOTAL		200		200					200		
			AMMUA	LOPERA	TING BUD	CETIME	ACT (000'	61			

#### ANNUAL OPERATING BUDGET IMPACT (000'S)

None

Major Changes in Project Cost:

N/A

Notes:

Project schedule dates and selected budget information are not provided due to the ongoing nature of this project.

FY Initiated:

Ongoing

Redevelopment Area:

N/A

**Initial Project Budget:** 

SNI Area:

N/A

Appn. #:

## 2007-2011 Proposed Capital Improvement Program

#### **Summary of Projects that Start after 2006-2007**

Project Name: Filtration Action Plan - Valve

Replacement

5-Year CIP Budget:

\$6,600,000

**Total Budget:** 

\$8,600,000

Council District: 4

Estimated Start Date: 4rd Qtr 2007

Estimated End Date: 2th Qtr 2013

Description: This project will replace approximately 108 valves in the filtration building. These valves

are leaking and no longer provide adequate water shut off. As a result, increasing amounts of labor are required to maintain the facility and the filtration process. This project, in addition to replacing leaking valves, will include upgrades and replacement of

many labor-intensive activities with automated processing enhancements.

**Project Name: Plant Electrical Reliability Council District: 4** 

5-Year CIP Budget: Estimated Start Date: 3rd Qtr. 2008 \$55,000,000

**Total Budget:** \$56,777,000 Estimated End Date: 2nd Qtr. 2015

Description: This project will include a four-phase construction schedule based upon the recently

completed master study. The project will replace and upgrade substations and switches, modify and upgrade power distribution buses and cabling, provide backup systems, and enhance the overall safety and reliability of the plant electrical systems.

Project Name: Reserve for Bio-solids Plans **Council District: 4** 

5-Year CIP Budget: \$28,000,000

**Total Budget:** \$85,000,000 Estimated Start Date: N/A

Estimated End Date: N/A

Description: Set aside future funding for the Bio-solid master plan and the Inactive Lagoons Bio-

Solids Removal project.

**Project Name: Warehousing Facility Addition** Council District: 4

5-Year CIP Budget: \$500,000

> **Total Budget:** \$500,000

Estimated Start Date: 2nd Qtr 2008

Estimated End Date: 4th Qtr 2009

Description: The plant maintains a substantial investment in spare equipment (including large pumps,

valves, and electrical distribution equipment), spare parts, and other material, such as pipe and electrical cable, in case of failure. Because of long lead-time in procurement, this spare equipment, parts and other materials are retained on-site. This project will provide covered storage facilities for wastewater treatment spare equipment, parts and materials. The covered storage will protect the Plant's investment from deterioration and

damage from exposure to the elements.

## 2006-2010 Adopted Capital Improvement Program

## **Explanation of Funds**

Revenues and expenditures for the operation and maintenance of the San José-Santa Clara Water Pollution Control Plant are accounted for by the City of San José, as administering agency, through the San José-Santa Clara Water Pollution Control Plant Operating Fund (Operating Fund) and the San José-Santa Clara Treatment Plant Capital Fund (Capital Fund), established by Ordinance 7214 in July, 1959.

Revenues from Tributary Agencies of the San José-Santa Clara Water Pollution Control Plant are recorded directly into the Treatment Plant Operating and Capital Funds respectively. The Tributary Agencies include the City of Milpitas, City of Cupertino, Burbank and Sunol Sanitary Districts, County Sanitation District No. 2-3, and West Valley Sanitation District.

Tributary Agencies are assessed for their share of annual operation, maintenance, equipment, and facilities replacement and capital costs, based on their respective flow and strength of sewage conveyed to the Plant.

The San José Sewer Service and Use Charge Fund was established by the San José City Council by Ordinance Number 7308, adopted in August, 1959. This fund is the depository of revenues from Sewer Service and Use Charges received from residential, commercial, and industrial users of the sanitary sewer system. A portion of these moneys are transferred to the Treatment Plant Operating and Capital Funds to pay for the City of San José's share of operating and capital costs of the Water Pollution Control Plant.

The Santa Clara Sewer Revenue Fund was established by Resolution Number 916 of the City Council of Santa Clara in October, 1960. Like the City of San José, revenues from this fund are transferred directly to the Treatment Plant Operating and Capital Funds.

The Treatment Plant Capital Fund provides all moneys used for capital projects. Included in this fund is the Treatment Plant Renewal and Replacement Fund. This fund was established to satisfy the Water Pollution Control Plant's federal and state grant agreements as well as to comply with bond covenants.

## WATER POLLUTION CONTROL PLANT FLOW AND PRIORITY OF FUNDS

